

On the Meaning of Noncanonical Question Intonation

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Abstract

In an ongoing corpus study of the intonation and meaning of 410 yes-no questions and 200 wh-questions in American English, we have previously confirmed that yes-no questions tend to rise and that wh-questions tend to fall. Here, we examine the meanings of the non-canonical yes-no questions that *fall* and wh-questions that *rise*. We have previously proposed that falling yes-no questions are non-answer-seeking, in that they are used e.g., for requests for action or indirect announcements. We also found that rising wh-questions are used for clarification questions and for questions seeking supplementary information. Here, we attempt an initial explanation for non-canonical question intonation in terms of Inquisitive Semantics. In doing so we need to consider rhetorical wh-questions, which are pronounced canonically. We propose that non-canonical intonation on questions signals that the question is to be understood as relatively non-inquisitive.

Data and Methods

- Data: 410 yes-no questions, 200 wh-questions.
- Corpora: CallHome and Fisher American English.
- We used Praat (v. 4.4.0.4) for phonetic analysis and ToBI for annotation.
- We classified them according to the final nuclear contour:
 - 90.5% (371) of yes-no questions were rising.
 - 81% (162) of wh-questions were falling.
- Here, we seek to characterize the meanings of the non-canonical 23 yes-no questions that fall (5.6%) and 42 wh-questions that rise (18%).
- In Inquisitive Semantics (Groenendijk & Roelofsens 2009), a sentence is “inquisitive” if the proposition it expresses allows for more than one way to update the common ground; otherwise it is “informative”.
- We suggest that production of a question with non-canonical intonation conveys that the proposition being proposed is relatively non-inquisitive compared to what it would have been like if pronounced with canonical intonation.

Falling Yes-No Questions

- Falling yes-no questions tend to be non-answer-seeking, as in (1) and (2) (Hedberg, Sosa & Fadden 2006).
- (1) Did I **tell** you that I have a new **job**?
L+H* !H* !H* L*LL%
- If (1) were used inquisitively, the speaker would evoke two possible ways of updating the common ground: “I told you that p”/“I didn’t tell you that p”. The fall conveys that the utterance is an announcement instead of a question, so that the instruction is to add “I have a new job” to the common ground.
- (2) Can we **talk** about the **job** things now?
H* L*LL%
- (2) is used as a request for action rather than a question. It has the illocutionary force of a polite imperative. It thus conveys a single way of updating the common ground, by adding “we talk about the job things now” to the hearer’s “plans set” (Han 2000).
- Thus, falling intonation conveys that only one possible state-of-affairs is being proposed, with the resulting proposal to update the common ground being non-inquisitive.

Rising Wh-Questions

- Rising wh-questions tend to be echo questions or more generally, ask for clarification, as in (3) and (4); or interrupt to ask for supplementary information, as in (5) and (6) (Hedberg, Sosa, Görgülü & Mameni 2010).
- (3) [The hearer has just provided an email address]
What’s after the **dot**?
L+H* L*H-H%
- (4) **Which** did you say you **preferred**?
H* L*H-H%
- (5) A: I’m just coming anyway but I have no idea like where I’ll go.
B: **When** are you **planning** on **coming**?
L*+H !H* L*H-H%
- (6) A: ...And the director’s in Detroit.
B: Yeah, we’re all in Detroit but the area directors um travel to the cities that the volunteers are in, and um you know meet with the communities and stuff like that. So-
A: **What’s** your **area** then?
H* L*H-H%
- Hedberg & Mameni 2010 proposed that the general meaning of rising intonation on wh-question is to convey that the set of possible answers actually under consideration is relatively small compared to the set that could be assumed to be under consideration given the form of the question. Thus, in (7) (from outside our corpus), the speaker conveyed that he is familiar with the faculty at York.
- (7) **Who** did you **work** with at **York**?
L+H* !H* L*L-H%
- We suggest here that rises on wh-questions signal that the question being conveyed is relatively non-inquisitive compared to what it would mean if it were produced with falling intonation.

Falling Rhetorical Wh-Questions

- Rhetorical wh-questions now turn out to be a puzzle for our proposal because they seem to already suggest an answer, and thus to not ask for a choice; but still they exhibit canonical intonation, which is falling for a wh-question. Examples from our data are shown in (8) and (9).
- (8) Like what do you **do** when **negotiations** **fail**?
H* !H* !H*L-L%
- Note that the speaker of (8) assumes that the hearer will not be able to answer the question, i.e. that the answer will be “I don’t know (either)”. Since it doesn’t expect a choice between alternatives, why is it falling? From the perspective of Inquisitive Semantics, perhaps we can say that it is inquisitive because it still essential to the effect of the question that a full set of alternatives be semantically proposed, e.g. “You invade the country”, “You continue to negotiate”.
- The type of rhetorical wh-question shown in (9) is also interesting. The answer being invited for this question is “not much of a reception”. Here a whole scale of possible kinds of receptions is evoked, so the utterance is inquisitive; but one answer is implicated as being the most likely, and that answer is at one extreme of the scale.
- (9) I mean, **what** **kind** of a **reception** does it get?
L*+H !H* L+H*LL%
- It is essential for the pragmatic effect of this question that the whole range of answers possible in principle is evoked semantically; so the question is maximally inquisitive, and thus is given canonical intonation.

Conclusion

- We have proposed that non-canonical, falling intonation on yes-no questions signals that the question is relatively non-inquisitive in that it is not seeking a choice between the positive and negative possibilities conveyed by its form. Instead the question is being used to e.g. make an assertion or to issue a request for action.
- Non-canonical wh-questions are rising, and convey that the question is relatively non-inquisitive, in that a relatively small set of answers is under consideration.
- Falling rhetorical wh-questions are maximally inquisitive because it is essential to their meaning that the full set of answer possibilities be evoked semantically, even though only one answer is pragmatically suggested.
- We don’t need to contradict Bartels 1999, who says that canonical wh-questions are falling because the presupposition of the question is being asserted, and assertion is the primary meaning of falling intonation. This accounts for the canonical intonation of wh-questions. We can assume that this meaning is primarily conveyed by the syntactic form of the wh-question, but that intonation only canonically matches it. We then just have to add that the inquisitiveness-value of the resulting question is reduced when non-canonical intonation is applied.
- We agree with Gunlogson 2003 that canonical rising intonation on syntactically interrogative yes-no questions signals that a choice is being proposed between two alternatives. Inverting the intonation reverses inquisitiveness. We could also say with her that inverting the canonical falling intonation of declarative-form sentences by producing them with rising intonation again signals a reversal in inquisitiveness, this time producing an inquisitive utterance out of a syntactic form that is canonically non-inquisitive.

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